

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

June 1, 2012

AIRWORTHINESS

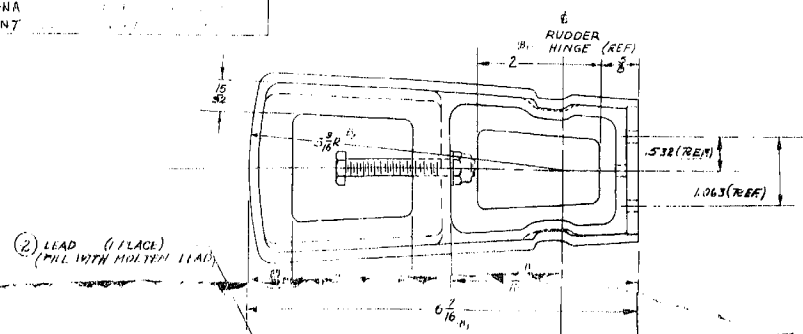
Group Chairman's Factual Report

WPR11MA454

Attachment 2 – Drawings
(4 pages)

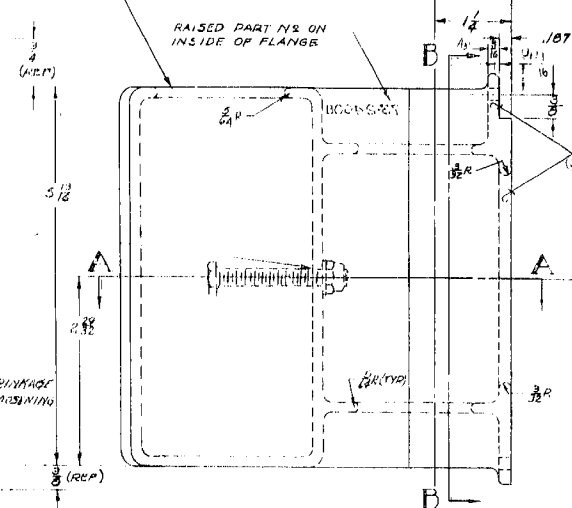
USED BY A-1-1-NAF SUBS CONTRACTOR'S BLOCKS

USP P-MIS-1-NA
 USI P-MIC-1-NA
 PSI P-MID-5-NA
 P-MID-5-N7



(2) LEAD (1 PLACE)
 (MIL WITH MULTIPLE LEAD)

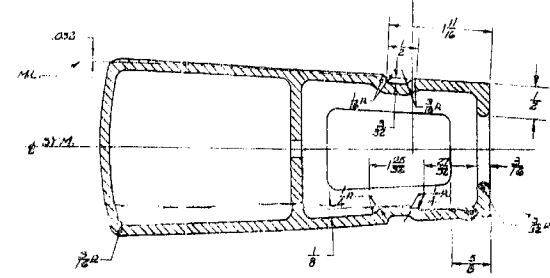
S1A
 (REF)



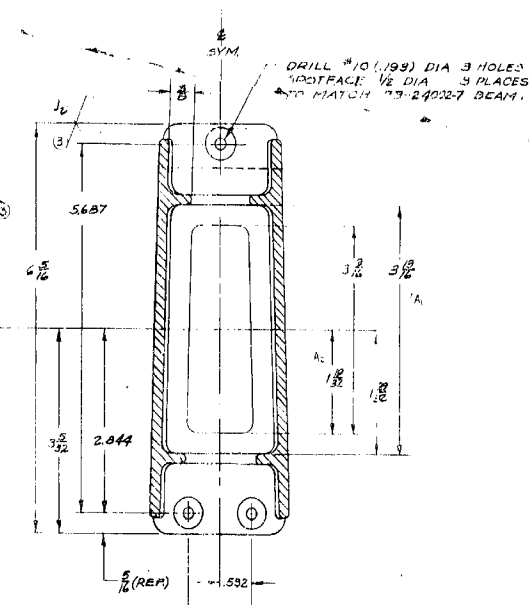
DRILL #10 (.199) DIA 3 HOLES
 5/8" - 11 BOLT 1 TRER
 1/4" - 20 X 1/8 WASHER 1 TRER
 1/4" - 20 X 1/8 NUT 1 TRER
 (3) SPOT FACE #3

NOTE: 1/16" HOLE AFTER LEAD
 AND COOLED 20 THRU UP STRIKING
 1/2" DIA VILNT LEAD FROM CARBIDE

S1A
 (REF)



SECTION A-A



SECTION B-B

- DIA ALL CASTE SPEC AN-92-A-334 MAY BE SUBSTITUTED FOR AN-92-C-390
 - 6-40 ALLOY SPEC AN-A-5 CLASS II MAY BE SUBSTITUTED
 - ALL FILLET RADII = 1/16 R
 - TOTAL WEIGHT OF CASTING & LEAD TO BE 16.60 ± .10 POUNDS
 - FOR CONTOURS SEE EMPENNAGE ORDNATE DWG 73-00012
 - ALL OUTSIDE CORNERS = 1/8 R
 - ALL WEBS & WALLS = 1/8 THICK
- NOTE: UNLESS OTHERWISE SPECIFIED

NO	REVISION	DATE	CHECK	APPROV
A	1	10/10/57		
B	1	10/10/57		
C	1	10/10/57		
D	1	10/10/57		
E	1	10/10/57		
F	1	10/10/57		
G	1	10/10/57		
H	1	10/10/57		
I	1	10/10/57		
J	1	10/10/57		
K	1	10/10/57		
L	1	10/10/57		
M	1	10/10/57		
N	1	10/10/57		
O	1	10/10/57		
P	1	10/10/57		
Q	1	10/10/57		
R	1	10/10/57		
S	1	10/10/57		
T	1	10/10/57		
U	1	10/10/57		
V	1	10/10/57		
W	1	10/10/57		
X	1	10/10/57		
Y	1	10/10/57		
Z	1	10/10/57		

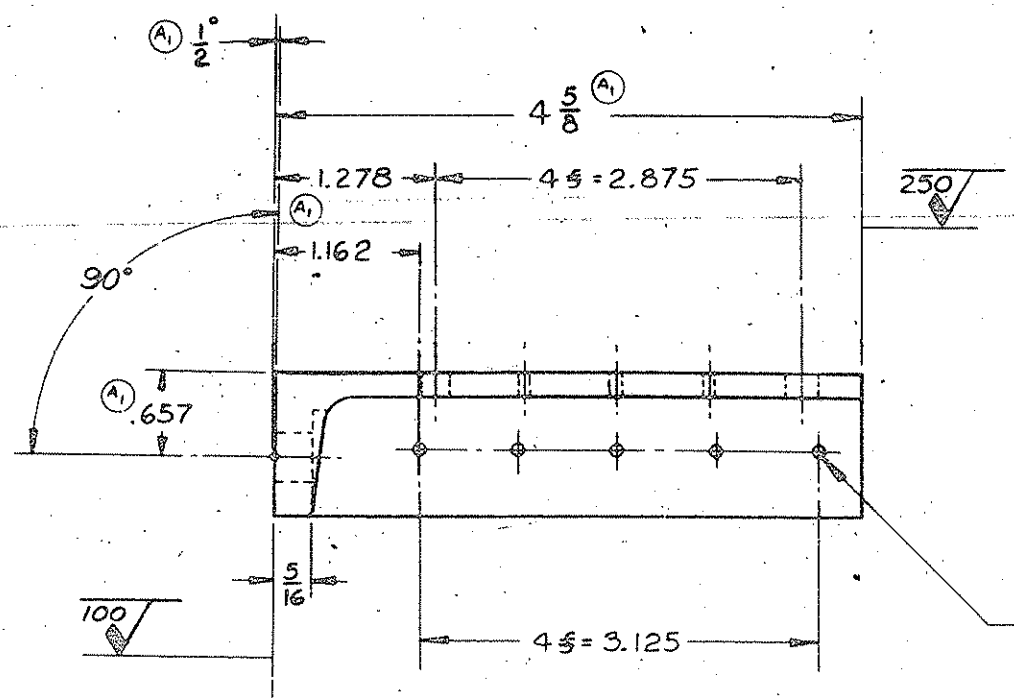
73-24008-2	WASHER	145 POUNDS	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-1	NUT (1000) (100-TSP ONLY)	NOTED	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-3	BOLT	NOTED	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-4	WASHER	NOTED	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-5	NUT	NOTED	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-6	BOLT	NOTED	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-7	WASHER	NOTED	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-8	NUT	NOTED	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-9	BOLT	NOTED	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-10	WASHER	NOTED	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-11	NUT	NOTED	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-12	BOLT	NOTED	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-13	WASHER	NOTED	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-14	NUT	NOTED	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-15	BOLT	NOTED	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-16	WASHER	NOTED	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-17	NUT	NOTED	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-18	BOLT	NOTED	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-19	WASHER	NOTED	1/2" DIA	1/2" DIA	1/2" DIA
73-24008-20	NUT	NOTED	1/2" DIA	1/2" DIA	1/2" DIA

NORTH AMERICAN AVIATION, INC.
 HOUSING ASSEMBLY - RUDDER
 STATIC BALANCE UPPER

73-24008

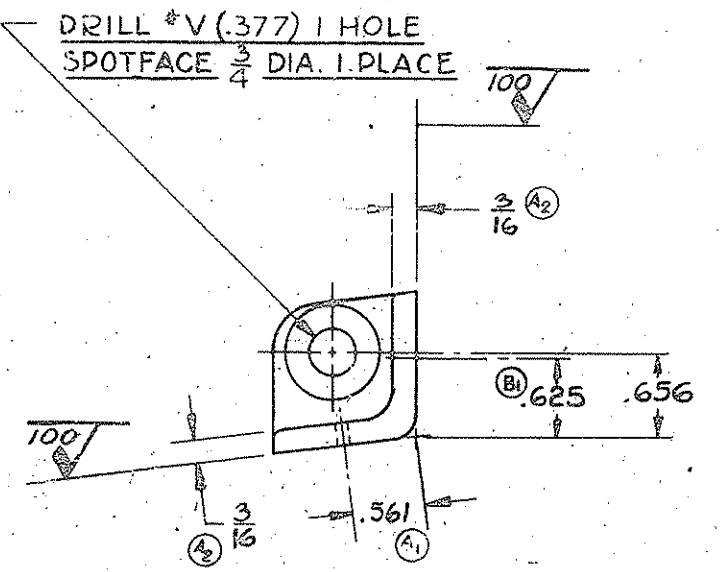
I I

73-24008



JIG DRILL #40(.098) 8 HOLES

JIG DRILL 1/4 (.250) 2 HOLES TO MATCH 73-21002



AAF 45-11743 (1001)	P-SUBS. (1000)	P-51D (NA124)
AAF 44-11343 (601)	AAF 45-11742 (1000)	P-51D (NA124)
AAF 44-84390 (1)	AAF 44-84389 (600)	P-51D (NA124)
AAF 44-12753 (2001)	& SUBS. (& SUBS.)	P-51D (NA-111)
AAF 44-73827 (2801)	& SUBS. (& SUBS.)	P-51D (NA-122)
SHIP NO.	THRU	MODEL
EFFECTIVE ON		

REV.	CHANGED	DATE	BY	EFFECT ON	APPROV.
NOTICE OF CHANGE					
REWORK YES		RECORD CHANGE		REFERENCES	
REWORK NO		NEW SHOP PRACTICE			
A	EFFECT ON 2801 (NA-122) & SUBS. 2001 (NA-111) & SUBS.			2	M.C.R. C395-4
1	REDRAWN. DIM 1 WAS 1.4 WAS 4 1-278 WAS 1.3665, 1.162 WAS 1.251, .657 WAS .701, .561 WAS .625			3	1-8-45 KULZER
2	ADDED 3/16 DIM. & PLA.			3	E.O. 128863
B	1 CHGD. DIM. .625 WAS .652			3	W.A. 767466
2	ADDED CODING			X	E.O. 128863 INT. INC.

L.H. SHOWN
R.H. OPPOSITE -1

1-1	73-21001-300	P-51D
1	73-21001-300	P-51D
1-1	73-21001-300	P-51D
1	73-21001-300	P-51D
1-1	73-21001-300	P-51D

- NOTES:
- ONE OF 73-21030 MAKES TWO OF THESE FINISHED PARTS.
 - TREAT & INSPECT PER PROCESS SPEC. PDI-13
 - FOR SERVICE ORDER ONLY, USED ON P-51D AIRPLANES. SEE FIELD SERVICE BULLETIN 51-296

122-21031-1	122-21031	1	MAKE FROM 73-21030						
PART NO.	REV.	PART NO.	REV.	DESCRIPTION	SIZE	ZONE	SPECIFICATION	NO. REQ. SHIP	NEXT ASSEM.
* R. H. ASSEM.		L. H. ASSEM.							
HEAT TREAT		CALC. WT.	0.12	DRAWN BY	KULZER	CHECKER		APPROV.	
FINISH				TOLERANCES EXCEPT AS NOTED		NORTH AMERICAN AVIATION, INC.			
106-00024				ANGLES ± 1/2 DEG.		INGLEWOOD, CALIFORNIA			
SCALE: FULL				FRACTIONS ± 1/32		FITTING - HOR. STAB.			
DRW. CRZ: D				DECIMALS ± .010		FRONT BEAM TO FUS. ATTACH			
				SURFACE		122-21031			
				ROUGHNESS PER					
				MAY. AIRCRAFT					
				STANDARD PER					

B 122-21031 V VI

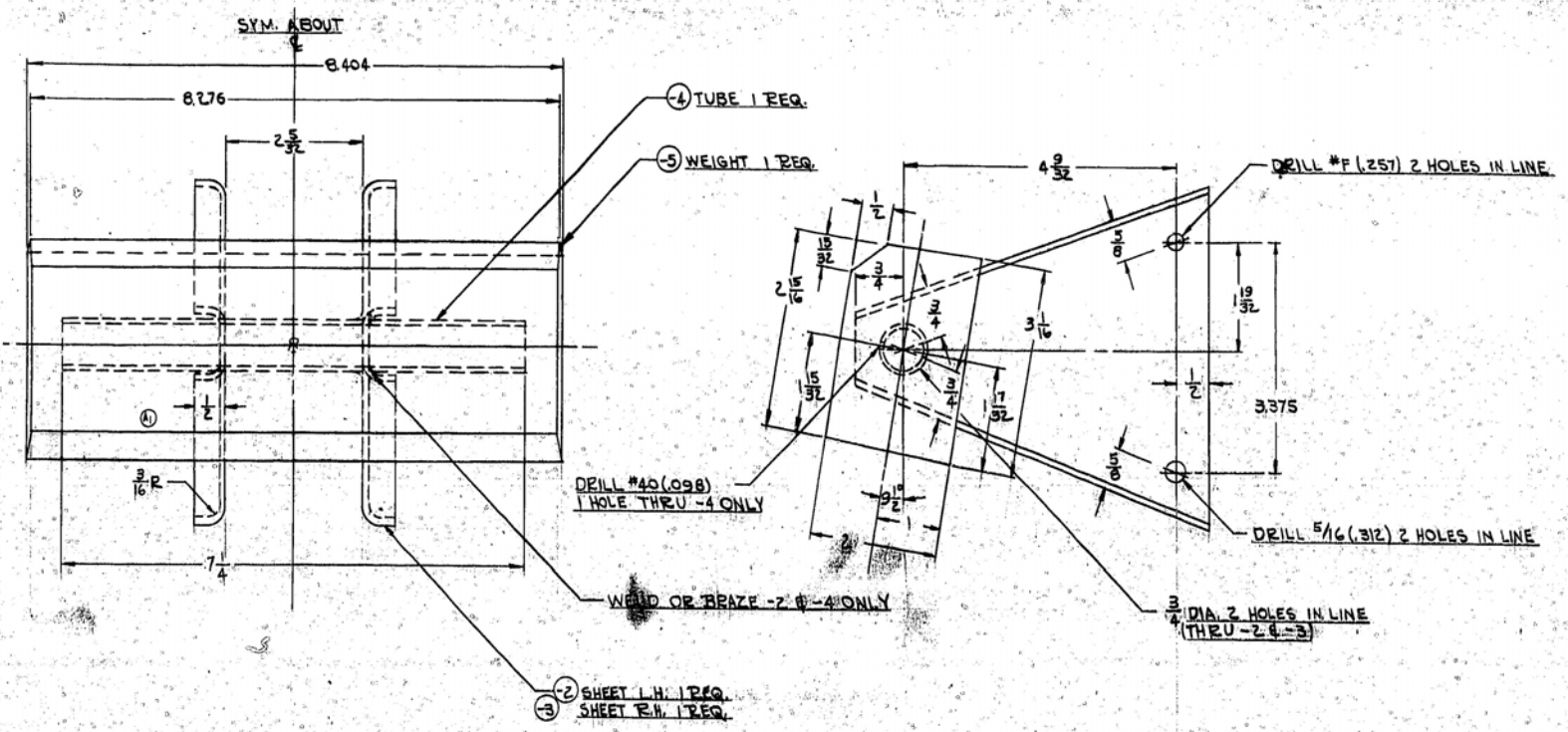
N/A

USED ON LAST 200 AIRCRAFT OF BLOCK PSID-10-NA
 ALSO USED ON PSID-15-NA & SUBS. CONTRACTOR'S BLOCKS
 USED ON LAST 371 AIRCRAFT OF BLOCK PSID-5-NT
 ALSO USED ON PSID-10-NT & SUBS. CONTRACTOR'S BLOCKS

SUBSTITUTION BLOCK - STEEL TUBING	
1-1	OR DASH NO INDICATES STEEL WHICH MAY BE SUBST FOR PART PLAIN OR L-PREPLATED STEEL OPTIONAL
1-2	OR DASH NO INDICATES STEEL WHICH MAY BE SUBST FOR PART PLAIN OR L-PREPLATED STEEL OPTIONAL
1-3	OR DASH NO INDICATES STEEL WHICH MAY BE SUBST FOR PART PLAIN OR L-PREPLATED STEEL OPTIONAL
1-4	OR DASH NO INDICATES STEEL WHICH MAY BE SUBST FOR PART PLAIN OR L-PREPLATED STEEL OPTIONAL

SUBSTITUTION BLOCK - STEEL SHEET	
1-1	OR DASH NO INDICATES STEEL WHICH MAY BE SUBST FOR PART PLAIN OR L-PREPLATED STEEL OPTIONAL
1-2	OR DASH NO INDICATES STEEL WHICH MAY BE SUBST FOR PART PLAIN OR L-PREPLATED STEEL OPTIONAL
1-3	OR DASH NO INDICATES STEEL WHICH MAY BE SUBST FOR PART PLAIN OR L-PREPLATED STEEL OPTIONAL
1-4	OR DASH NO INDICATES STEEL WHICH MAY BE SUBST FOR PART PLAIN OR L-PREPLATED STEEL OPTIONAL

NO	CHANGES
1	A) ADDED 1/2" RADIUS DIM.
2	ADDED 1/2" RADIUS DIM.
3	ADDED 1/2" RADIUS DIM.
4	ADDED MASTER LAYOUT NO. & NOTE 3.



PSID	NA	#	SUBS	SHIP NO.	THRU
PSID	NA124	#1	SUBS 44-84390		& SUBS
PSID	NA122	#1	SUBS 44-63160		& SUBS
PSID	NA111	#301	SUBS 44-11182		& SUBS
PSID	NA109	#101	SUBS 44-14653		& SUBS

③ 3. FOR SERVICE ORDER ONLY, USED ON PS1B, PS1C & PS1D. SEE FIELD SERVICE BULLETIN 51-103 & MASTER LINES LAYOUT NO. 109-52-2.
 1. WEIGHT OF ASSEM. TO BE 20.75 ±.50
 NOTE

REV	PART NO.	DESCRPTION	MATERIAL	SPECIFICATION	QTY	NEXT ASSEM.	MODEL	APPROVAL	
								BY	DATE
-6	109-5217	WEIGHT ASSEM. LEAD	18-778 T-300P	Q04-19 CR 3					
-4	C.M. ST. L. SHEET 44-100	DRILL #40(.098)	AN-VV-T-930						
-3	C.M. ST. L. SHEET 44-100	DRILL #F(.257)	AN-QQ-6-688						
-2	C.M. ST. L. SHEET 44-100	DRILL 5/16(.312)	AN-QQ-6-688		108-05010	1	108-52013		

SCALE	FINISH	TOLERANCES	FRACTURING	PLACEMENT	DECIMALS	ENGR. NO.	CHECKER	APPROVED	DATE	CORPORATION	PLANT
108-00024	SMALL	UNLESS 1/16 DIA.	DRILLED HOLES	0.0005	1/16 TO 1/2 DIA	0.0005-.001				NORTH AMERICAN AVIATION, INC.	INGLEWOOD, CALIFORNIA
					1/2 TO 1 DIA	0.0005-.001				WEIGHT ASSEMBLY -	ELEVATOR INERTIA